

**REMARKS**

This is in response to the Official Action currently outstanding with regard to the above-identified application.

Claims 1-24 were originally filed. Claims 1-24 have been amended by the foregoing Amendment. No claims have been canceled, and no claims have been added. Accordingly, upon the entry of the foregoing Amendment, Claims 1-24 as hereinabove amended, will constitute the claims under active prosecution in this application.

The claims as they will stand upon the entry of the foregoing Amendment are reproduced above in a manner indicating the amendments thereto along with appropriate status indicators for each claim as required by the Rules.

In the currently outstanding Official Action, the Examiner has:

1. Failed to acknowledge Applicants' claim for foreign priority under 35 USC 119(a)-(d) or (f), or to confirmed the receipt of the required copies of the priority documents by the United States Patent and Trademark Office – **appropriate acknowledgement of Applicants' claim for foreign priority and of the receipt of the required copy of the priority documents in response to this communication is respectfully requested;**

2. Failed to provide Applicants with any indication concerning the acceptability of the drawings – **an indication concerning the acceptability of the drawings in response to this communication is respectfully requested;**
3. Provided Applicants with a copy of a Notice of References cited (Form PTO-892) along with copies of each of the newly cited references;
4. Failed to provide Applicants with a copy of the Form PTO-1449 that accompanied their Information Disclosure Statement filed concurrently with this application on 9 January 2001 – **appropriate acknowledgement of the Information Disclosure Statement filed in this application on 9 January 2001 in response to this communication is respectfully requested;**
5. Rejected Claims 1-24 under 35 USC 102(e) as being anticipated by the Leung reference (US Patent 6,621,810); and
6. Cited numerous other references as being pertinent to Applicants' disclosure, but failed to apply any of those references against any of the pending claims of this application.

No further comment is deemed necessary in these Remarks regarding items 1-4 and 6 above.

With respect to item 5, Applicants now have amended the claims of this application so as to clarify the English language phraseology thereof (the original claim phraseology having been prepared during a translation from the original Japanese). Further, by the foregoing Amendment, Applicants now have clearly indicated that each of the individual networks ("agents" in the terminology utilized by the Leung reference) **are connected "separately" or "individually" to the server claimed.**

In view of these clarifying amendments, Applicants respectfully **traverse** the Examiner's outstanding rejections. The reasons supporting this traversal of the bases of the Examiner's currently outstanding rejections are stated below.

Applicants respectfully submit that a close reading of the Leung reference reveals that it is concerned with mobile node mobility among so-called "Home" and "Foreign" networks that connect to the Internet **via the same router**. It is to be noted in this regard that in the Leung reference, the "Home" and "Foreign" agents (networks) in one embodiment are to be connected in series with one another such that one end of the series is connected to the Internet through a "router"  $R_1$ . In another embodiment, each agent communicates via its own router to a common router and thence to the Internet. However, Applicant respectfully submits that the situation wherein each network connects to the Internet via a different router is outside of the scope of the Leung reference. By this it is meant that in the embodiments of the Leung reference, the "Home" network is connected to the Internet via router  $R_1$ , and the "Foreign" network is connected to the Internet indirectly either via the "Home" agent or via  $R_2$  through  $R_1$ .

Accordingly, since the specifically stated purpose of the Leung reference is to allow a mobile node to roam from a first one of "Home" or "Foreign" agents communicating with the Internet via the same router to another such agent without the necessity of terminating an ongoing Internet session, Applicants respectfully submit that it is appropriate to equate the "Home" agent/router combination of the Leung reference to a server as disclosed and claimed by the present application.

The reason for the latter conclusion is that to accomplish his goal, Leung establishes a sophisticated registration and authentication protocol whereby the mobile node associated with the "Home" agent registers its current location (i.e., as communicating via the "Home" agent or a "Foreign" agent) at the "Home" agent. Also each of the "Home" and the "Foreign" agents establishes a management table indicative of the mobile nodes that are communicating through it. Thereafter, a received communication to be directed to the mobile node is received by the "Home" agent associated with that mobile node via  $R_1$ , and if the mobile node is not then communicating via the "Home" network, the incoming information is transmitted by physical connection or via so-called "tunneling" (if necessary) to the mobile node via the registered "Foreign" agent location of the mobile node at the "Home" agent. Therefore, as stated at Column 8, line 61 to Column 9, line 5, of the Leung reference:

"Upon completion of registration, a mobile node may roam to the Foreign agent and continue to receive packets addressed to the mobile node **via the Home Agent**. Thus, a packet addressed to the mobile node may be received from the corresponding node (18). The packet is then forwarded to the mobile node via a physical interface. As indicated above, where the care-of address is the Foreign Agent address rather than a collocated care-of address, the packet may be forwarded without encapsulating or tunneling the packet. In this manner, a corresponding node may continue to communicate with a mobile node using the mobile node's home address." (Emphasis added)

On the other hand, in the present invention, the management table for directing incoming information from the Internet at the server level sends the incoming information directly to the mobile node via the agent with which the target mobile node is then currently associated. Consequently, the function of directing incoming data to the current location of the mobile node in the present invention operates at a location higher in the transmission hierarchy than is discussed in the Leung reference. This is because the Leung reference is really nothing more than a special case of the prior art disclosed in the Background section of the present specification.

Specifically, in the present invention, the server is provided with (i.e., constructs) a management table indicative of (i) the current location of each of the mobile nodes among the "Home" and "Foreign" agents, and (ii) the "Home" agent associated with each of the mobile nodes. With this management table, the server receives information addressed to the mobile node at its "Home" address, adds a care-of address thereto if necessary, and conveys the information directly to the agent where the mobile node is then located for delivery (i.e., without the need for transmission of the information to the "Home" agent of the mobile node for redirection ("pass through") to the agent at which the mobile node is then located either by physical connection, by tunneling or otherwise).

Leung's creation of management tables at each agent storing information concerning which of the mobile nodes are communicating through it, and a routing table at the "Home" Agent of the mobile node to accomplish a "pass-through" function both when the mobile node is present on its "Home" agent and when it is not present on its "Home" agent. This indicates that the Leung system is operating in the manner described with respect to "Prior Art" Figure 10 of the present application (see also Figure 1 of the Leung reference), with the added feature that the connection between the "Home" and the "Foreign" agents is physical in nature (i.e., without the necessity of so-called "tunneling").

The mode of operation just described is possible in Leung because the “Home” and “Foreign” agents communicate with the Internet via the same router (i.e., there is no need to send the incoming information received by the “Home” agent back out to the server level, or even further to the Internet, to come back in with an appropriate “care-of” component added to its destination address). This is because the same result is accomplished internally of the multi-agent configuration associated with the single router. The latter feature reduces complexity and requires less memory than the system disclosed as prior art in the present specification. This is because the need to add a care-of address to the incoming information at the “Home” agent in order to redirect it to the agent at which the mobile node is then located (a pass through mode of operation) is simplified by the physical interconnection of the networks envisioned by Leung.

In summary, therefore, Applicants respectfully submit that the Examiner has failed to fully understand the present invention as claimed. In particular, it appears that the Examiner has relied upon the same portions of the Leung reference to support his anticipation rejection with respect to **both** the mobile node-Home Agent-Foreign Agent combination including the communication device and detection device claimed **and** the communication, detection and control circuits of the claimed server (which the Examiner appears to believe correspond in the Leung reference to “router  $R_1$ ”, ***even though  $R_1$  in Leung performs no management function beyond the direction of incoming information according to its address***). Applicants respectfully submit that the latter conclusion is incorrect, and consequently, that the outstanding rejection under 35 USC 102 is based upon an incorrect technical interpretation of the Leung disclosure.

In the above regard, Applicants respectfully submit that the key to the understanding of the impropriety of the currently outstanding rejection is that it is required that to anticipate a claim under 35 USC 102 **all** of the elements claimed must be found in the same prior art reference functioning with respect to one another in the same or an equivalent manner to the claimed functions. Applicant respectfully submits that such is not the case when the Leung reference is compared to the presently claimed invention.

Instead, the present invention includes multiple networks including communication devices and detection devices (a communication system similar to that disclosed by Leung), and at least one mobile node. These components supply information concerning the relationship of the respective networks with the mobile node (i.e., the network with which the mobile node is currently associated) **at the network level**. The present invention, however, further includes an additional communication system between the networks and the server, and **does not include** components forming the Interface table of the “Home” agent disclosed as part of the Leung system. This is because the present invention avoids the “Home” agent pass through function of the prior art by means of a management table (storage circuit/control circuit) at a location in the incoming information transmission path **prior to** the incoming information ever reaching (or being directed to) its originally addressed agent.

In other words, the present invention does not include all of the components disclosed by Leung, and in fact includes components different from those disclosed by Leung or the prior art referenced in the background portion of the specification. Further, it is these elements that allow the present invention to function differently from either the Leung reference or the art discussed in the Background section of the specification.

More particularly, as mentioned previously, these different components include the communication circuit, the storage circuit (having the “Home” associations of each mobile node directly available to it without external communication) and the control circuit of the server. These components co-operate with one another to form a management table **at the server** which allows the server to cause incoming information destined for the mobile node to totally avoid the previously required incoming information “pass-through” the “Home” agent of the mobile node for redirection to the agent with which the mobile node is then currently associated. These components are not disclosed, taught or suggested by the components forming the prior art routing table in the “Home” agent of the Leung reference upon which the Examiner relies, nor are they disclosed, taught or suggested in any of the other art cited by the Examiner to the best of Applicants’ present knowledge.

In addition, Applicant respectfully submits that no combination of the cited art would support a rejection under 35 USC 103. In support of this position, it is to be noted that nothing within the four corners of the art of record teaches, discloses or suggests to a person of ordinary skill in the art at the time the present invention was made (or otherwise establish an appropriate *prima facie* case supporting the proposition), that the “Home” agent of a mobile node should (or could) be bypassed in the course of the transmission of incoming information to the mobile node while the mobile node was communicating through a “Foreign” agent rather than its “Home” agent.

***In addition, nothing in the art teaches, discloses or suggests the deletion of elements from the prior art structures and the addition of different elements so as to allow the goal of the present invention to be achieved.***



In view of the foregoing Amendment and Remarks, Applicants respectfully submit that the Examiner's currently outstanding rejections are in error and should be withdrawn. Accordingly, a decision so holding and allowing Claims 1-24 as hereinabove amended in response to this communication is respectfully requested.

Further, Applicants believe that additional fees beyond those submitted herewith are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

Date: July 21, 2004

By: David A. Tucker  
David A. Tucker  
Reg. No. 27,840

Edwards & Angell, LLP  
P.O. Box 9169  
Boston, MA 02209-4280  
(617) 517-5508